



NCR: Yes / No

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions							
				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge  <hr/> <hr/> <hr/>							
				<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled  <hr/> <hr/> <hr/>							
				<input type="checkbox"/> Other							

Work Order ID 94189

\*94189\*

Page 2

November-30-12 10:06:53 AM

Item ID: 647.1813

Accept

\*N900040100\*

Setup

Start

\*NS1\*

Revision ID:

Item Name: Angle

Stop

\*NS2\*

Start Date: 11/30/12 Start Qty: 2.00

\*2\*

Cust Item ID:

Required Date: 12/14/12 Req'd Qty: 2.00

\*2\*

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

\*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop

\*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

QC8- Inspect parts - second check

0.00

\*130\*

QC

Memo

0.00

Quality Control

(4) 12-12-17

DAS  
09  
8-89

140

Form as per dwg

0.00

\*140\*

Brake NC

Memo

0.00

Brake NC

4

81  
12/12/17

150

QC5- Inspect part completeness to step on W/O

0.00

DAS

15  
8-89

0.00 BOP

\*150\*

QC

Memo

Quality Control

4

81

NCR: Yes / No

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions							
				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge  <hr/> <hr/>							
				<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled  <hr/>							
				<input type="checkbox"/> Other							

Work Order ID 94189

\*94189\*

Page 3

November-30-12 10:06:53 AM

Item ID: 647.1813

Accept

\*N900040100\*

Setup Start

\*NS1\*

Revision ID:

Item Name: Angle

Stop

\*NS2\*

Start Date: 11/30/12 Start Qty: 2.00

\*2\*

Cust Item ID:

Required Date: 12/14/12 Req'd Qty: 2.00

\*2\*

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

\*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop

\*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

160

Outsource process-Anodize per QSI017 4.1.10.1

0.00

\*160\*

Outsource4

Memo

0.00

11/13-01-15

Outsource process - Anodize

ISSUE P/O: 18829

HARD ANODIZE, COLOR BLACK AS PER DWG.(SEE NOTE 2)

170

Receive & Inspect for Damage & Mat'l Certs

0.00

\*170\*

Packaging

Memo

0.00

11/13/2012 (2)

180

QC5- Inspect part completeness to step on W/O

0.00

\*180\*

QC

Quality Control

Memo

0.00

DAS  
16  
9-3  
13/04/10

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order:		DISPOSITION			AGAINST DEPARTMENT/PROCESS						
		Rework	<input type="checkbox"/>	Skid-tube	<input type="checkbox"/>	Crosstube	<input type="checkbox"/>	Water Jet	<input type="checkbox"/>	Engineering	<input type="checkbox"/>
		Scrap	<input type="checkbox"/>	Machining	<input type="checkbox"/>	Small Fab	<input type="checkbox"/>	Prod. Eng. Coor.	<input type="checkbox"/>	Quality	<input type="checkbox"/>
		Use-as-is	<input type="checkbox"/>	Thermoforming	<input type="checkbox"/>	Finishing	<input type="checkbox"/>	Rec/Store/Packaging	<input type="checkbox"/>	Other	<input type="checkbox"/>
		Work Order Update	<input type="checkbox"/>	Large Fab	<input type="checkbox"/>	Composite	<input type="checkbox"/>	Supplier	<input type="checkbox"/>		
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear	General										
	Bending	<input type="checkbox"/>	Bend	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Ovalized	<input type="checkbox"/>	Pressure/Forced		
	Centre Not Concentric to O/S	<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Hardware	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Temperature/Cure		
	Cracks	<input type="checkbox"/>	Broken/Damaged	<input type="checkbox"/>	Inspection Incomplete	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Weld		
	Crushed/Crimped.	<input type="checkbox"/>	Burrs	<input type="checkbox"/>	Instructions Incomplete/Unclear	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Wrong Stock Pulled		
	Cuffs	<input type="checkbox"/>	Contamination	<input type="checkbox"/>	Maintenance	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>			
	Heat Treat	<input type="checkbox"/>	Countersink	<input type="checkbox"/>	Mislabeled	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>			
	Inspection Strip in Tube	<input type="checkbox"/>	Cut Too Short	<input type="checkbox"/>	Misread	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>			
	Ripples in Bend	<input type="checkbox"/>	Drill Holes	<input type="checkbox"/>	Offset	<input type="checkbox"/>		<input type="checkbox"/>			
	Torque Waves in Extrusion	<input type="checkbox"/>	Drawing	<input type="checkbox"/>	Out of Calibration	<input type="checkbox"/>		<input type="checkbox"/>			
	Turning Sequence	<input type="checkbox"/>	Finish	<input type="checkbox"/>	Out of Sequence	<input type="checkbox"/>		<input type="checkbox"/>			
	Wave/Twist in Tube	<input type="checkbox"/>	Folio	<input type="checkbox"/>	Outside Dimensions	<input type="checkbox"/>		<input type="checkbox"/>			

**Work Order ID 94189****\*94189\***

Page 4

November-30-12 10:06:53 AM

Item ID: 647.1813

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Item Name: Angle

Stop

**\*NS2\***

Start Date: 11/30/12 Start Qty: 2.00

**\*2\***

Cust Item ID:

Required Date: 12/14/12 Req'd Qty: 2.00

**\*2\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

190

**\*190\***

SprayPaint

Spray Painting

0.00

4

0

0

A

13-3-22

Memo

0.00

PRIME IAW MIL-P-23377J TYPE1 CLASS N AS PER DWG. (SEE NOTE 2)

CARDINAL 4860-50 PRIMER BATCH: 124204

200

**\*200\***

QC

Quality Control

QC14- Inspect Spray Paint

0.00

(DAS  
16  
9-16)

0.00 1310410

210

**\*210\***

Packaging

Packaging

Identify as per dwg & Stock Location: ST139C 0.00

0.00

Memo

\*\*\*IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV\*\*\*

4X

SP13-4-A

1392

NCR: Yes / No

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework Scrap Use-as-is Work Order Update	Skid-tube Machining Thermoforming Large Fab	Crosstube Small Fab Finishing Composite	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier	Engineering Quality Other				
Part No. _____		NCR No. _____									
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions							
				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge  <hr/> <hr/> <hr/>							
				<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled  <hr/> <hr/> <hr/>							
				<input type="checkbox"/> Other							

**Work Order ID** 94189

**\*94189\***

Page 5

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**Item ID:** 647.1813

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

**Revision ID:**

**Item Name:** Angle

Stop

**\*NS2\***

**Start Date:** 11/30/12    **Start Qty:** 2.00

**\*2\***

**Cust Item ID:**

**Required Date:** 12/14/12    **Req'd Qty:** 2.00

**\*2\***

**Customer:**

**Reference:**

**Approvals:**

**Process Plan:**

**Date:**

**Tooling:**

**Date:**

Run Start

**\*NR1\***

**QC:**

**Date:**

**SPC (Y/N):**

**Date:**

Stop

**\*NR2\***

**Sequence ID/  
Work Center ID**

**Operation  
Description**

**Set Up/  
Run Hours**

**Tool ID**

**Tool #**

**Plan  
Code**

**Accept  
Qty**

**Reject  
Qty**

**Reject  
Number**

**Insp.  
Stamp**

220

QC21- Final Inspection - Work Order Release

0.00

13/4/10 JF

**\*220\***

QC

Quality Control

**Memo**

0.00

JF  
13-4-10

NCR: Yes / No

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____		DISPOSITION			AGAINST DEPARTMENT/PROCESS				
Part No. _____		Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
NCR No. _____		Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
		Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
		Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									
FAULT CATEGORY									
Landing Gear		General							
Bending	<input type="checkbox"/>	Bend	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Ovalized	<input type="checkbox"/>	Pressure/Forced	
Centre Not Concentric to O/S	<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Hardware	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Temperature/Cure	
Cracks	<input type="checkbox"/>	Broken/Damaged	<input type="checkbox"/>	Inspection Incomplete	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Weld	
Crushed/Crimped.	<input type="checkbox"/>	Burrs	<input type="checkbox"/>	Instructions Incomplete/Unclear	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Wrong Stock Pulled	
Cuffs	<input type="checkbox"/>	Contamination	<input type="checkbox"/>	Maintenance	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>		
Heat Treat	<input type="checkbox"/>	Countersink	<input type="checkbox"/>	Mislabeled	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>		
Inspection Strip in Tube	<input type="checkbox"/>	Cut Too Short	<input type="checkbox"/>	Misread	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>	Other	
Ripples in Bend	<input type="checkbox"/>	Drill Holes	<input type="checkbox"/>	Offset	<input type="checkbox"/>		<input type="checkbox"/>		
Torque Waves in Extrusion	<input type="checkbox"/>	Drawing	<input type="checkbox"/>	Out of Calibration	<input type="checkbox"/>		<input type="checkbox"/>		
Turning Sequence	<input type="checkbox"/>	Finish	<input type="checkbox"/>	Out of Sequence	<input type="checkbox"/>		<input type="checkbox"/>		
Wave/Twist in Tube	<input type="checkbox"/>	Folio	<input type="checkbox"/>	Outside Dimensions	<input type="checkbox"/>		<input type="checkbox"/>		

**Picklist Print**

November-30-12 10:06:53 AM

Page 1

Work Order ID: 94189

Parent Item: 647.1813

Parent Item Name: Angle

Start Date: 11/30/12

Required Date: 12/14/12

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP REV:A 12.10.03 NEW ISSUE DD VERF:JFS

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.063 2024-T3 .063 sheet		Purchased	No			110	sf	213.1700	0.088	0.1852632		B12-12-16	

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
MAT022	213.17	
119916	0.1	
121197	10.67	
123654	17.9	123654
123701	184.5	

(4)

NCR: Yes / No

# **WORK ORDER NON-COMPLIANCE / UPDATE**

DQA: Date:

QA Closed: Date:

Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS					
			Rework Scrap Use-as-is Work Order Update	Skid-tube Machining Thermoforming Large Fab	Crosstube Small Fab Finishing Composite	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier	Engineering Quality Other			
Part No. _____										
NCR No. _____										
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Doc/Data										
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										
FAULT CATEGORY										
Landing Gear				General						
Bending	Bend	Grain	Ovalized	Pressure/Forced						
Centre Not Concentric to O/S	BOM/Route	Hardware	Over/Under tolerance	Temperature/Cure						
Cracks	Broken/Damaged	Inspection Incomplete	Part Incorrect	Weld						
Crushed/Crimped.	Burrs	Instructions Incomplete/Unclear	Part Lost/Missing	Wrong Stock Pulled						
Cuffs	Contamination	Maintenance	Part Moved							
Heat Treat	Countersink	Mislabeled	Positioned Wrong							
Inspection Strip in Tube	Cut Too Short	Misread	Power Loss/Surge							
Ripples in Bend	Drill Holes	Offset								
Torque Waves in Extrusion	Drawing	Out of Calibration								
Turning Sequence	Finish	Out of Sequence								
Wave/Twist in Tube	Folio	Outside Dimensions								

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 03686				SHEET 1 OF 2	
	DWG NO. 647.1800	REV: N/C	PREPARED BY B. PETERS	DATE: 11/12/12		EFFECT ON DWG <input checked="" type="checkbox"/> INC. <input type="checkbox"/> UNINC.
	DWG TITLE: SHEETMETAL					
	APPROVED BY:	ENGR <i>[Signature]</i>	MFG <i>Dave Baker</i>	QC <i>[Signature]</i>	EFF:	CURRENT ORDER
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE	REASON: REVISED RADIUS ON SHEETMETAL BEND.				ECR:	D-12-020

**NOTES:**

- 1 MATERIAL: ALUMINUM 2024-T3 PER AMS-QQ-A-250/4**
- 1 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III,  
CLASS 2, COLOR BLACK;  
CARDINAL 4860-50 PRETREATMENT PRIMER  
PRIME IAW MIL-P-23377J TYPE I CLASS N**
- 3. DEBURR AND BREAK ALL SHARP EDGES**
- 4. IDENTIFY IAW MPP-120**

SHEW  
 SETUP  
 ENGINEERED  
 UNCONTROLLED  
 SUBJECT TO  
 WITHOUT  
 WORK ORDERS  
 NO *94189 MCS*  
*12-12-04*

**SHEET 1, ZONE A1 WAS:**

F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL	SPECIFICATION
DOCUMENTS EFFECTED:				<input type="checkbox"/> RFMS <input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRUC <input type="checkbox"/> ICA <input type="checkbox"/> BOM	CHANGE CATEGORY <input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR	DER REVIEW REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

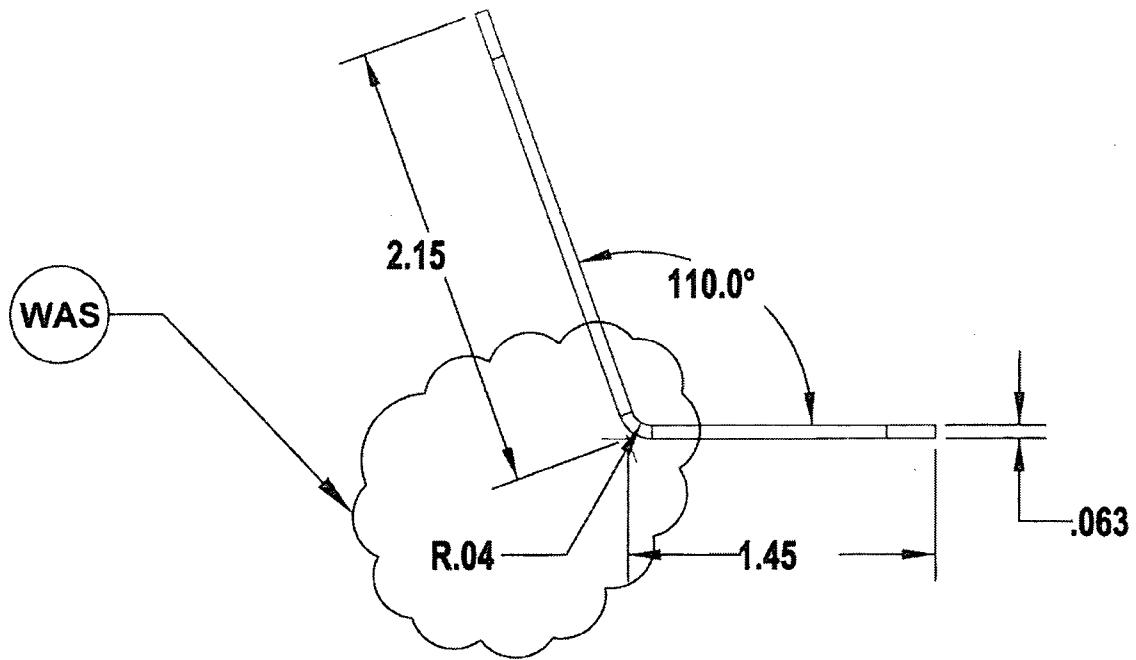
94189

APICAL INDUSTRIES, INC.

ENGINEERING CHANGE NO.

03686

SHEET 2 OF 2



**SHEET 4, ZONE D5 WAS:**

F/N	TC	PART NUMBER	QTY	DESCRIPTION
-----	----	-------------	-----	-------------

MATERIAL /SPECIFICATION				
-------------------------	--	--	--	--

1 2 3 4 5 6 7 8  
THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF  
APICAL INDUSTRIES AND IS NOT TO BE COPIED OR USED EXCEPT WITH THE  
WRITTEN CONSENT OF APICAL INDUSTRIES PROVIDED.

REF	DESCRIPTION	DATE	AMENDED BY
NEXT ASSY	647.1800	RE 07/24	P. GARDNER
^	NO COPY, PARTS LIST ONLY		RE 07/24 P. GARDNER

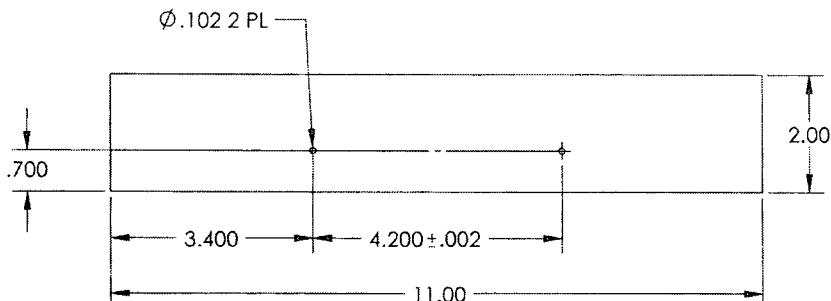
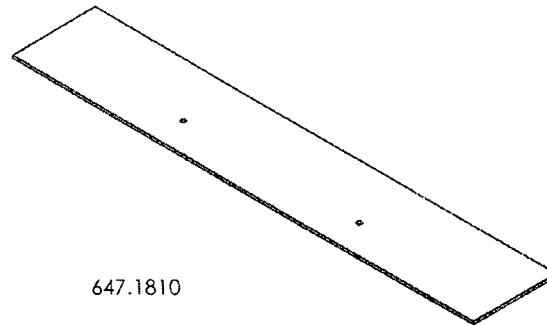
NOTES:

A PRIMARY MATERIAL: 2024-T3 ALUMINUM PER AMS-QQ-A-250/4  
ALTERNATE MATERIAL: 6061-T6/162 ALUMINUM PER AMS-QQ-A-250/11

B FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III,  
CLASS 2, COLOR BLACK;  
CARDINAL 4860-50 PRETREATMENT PRIMER  
PRIME IAW MIL-P-2337J TYPE 1 CLASS N

C 3. DEBURR AND BREAK ALL SHARP EDGES

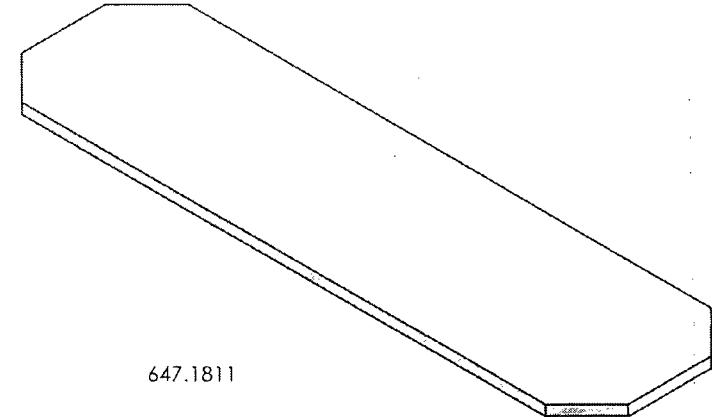
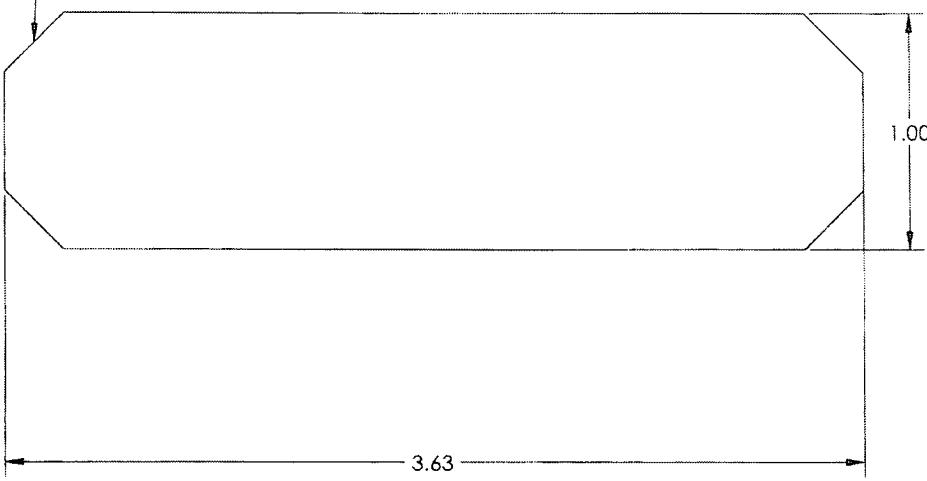
D 4. IDENTIFY IAW MPP-120



REF	QTY	PART #	DESCRIPTION	MATL	SPEC.
647.1810			NOSE DOOR SPACER		
647.1817			SUPPORT, RH		
647.1816			SUPPORT, LH		
647.1815			GUSSET, RH		
647.1814			GUSSET, LH		
647.1813			ANGLE		
647.1812			SHIM		
647.1811			SPACER		
647.1810			NOSE DOOR DOUBLER		
NEXT ASSY (S)					
ORIGINAL DATE 06-01-09					
DRAWN BY P. GARDNER					
647.1300					
DRAWING APPROVAL					
06-01-09					
CONTRACT NO.					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE .005 FOR LENGTHS & WIDTHS .010 3 PLACE DECIMALS ± .002 ANGLES ± .5°					
SHEET 1 OF 1 Dwg. No. 647.1800 Rev. A					
SCALE NONE 1 SHEET 1 OF 7					

1 1 2 3 4 5 6 7 8 94189  
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WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED

.25 X 45.0°  
4 PL

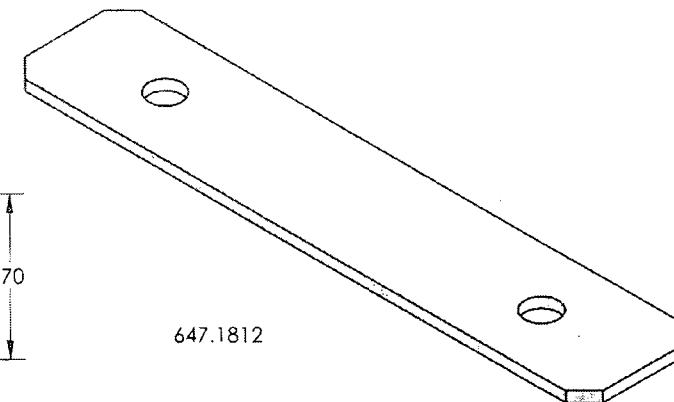
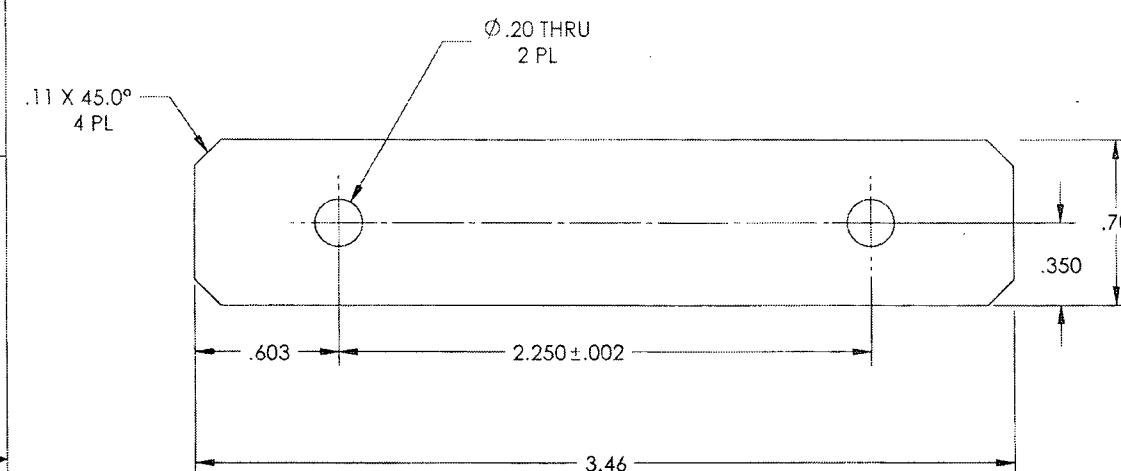


ORIGINAL DATE	04/01/00
DRAWN BY	J. GARDNER
DESIGNED BY	P. BRAVO
GRAVING APPROVAL	2001/02/03
2001/02/03	2001/02/03
CONTRACT NO.	
UNLESS OTHERWISE SPECIFIED, THICKNESS IS 1/16 INCHES TOLERANCES ARE: +0.015, -0.010 3 PLACE DECIMALS ± 0.005 ANGLES ± 3°	
DRAWING CODE	DMG NO.
6 07M26	647.1800
SCALE: NONE	REV: A
SHEET: 2 DF 7	

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HAS MAILED, SHIPPED, OR FURNISHED TO A THIRD PARTY, WHETHER OR NOT  
THE WRITTEN APPROVAL OF APICAL INDUSTRIES IS PROVIDED.

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A



647.1812

B

C

D

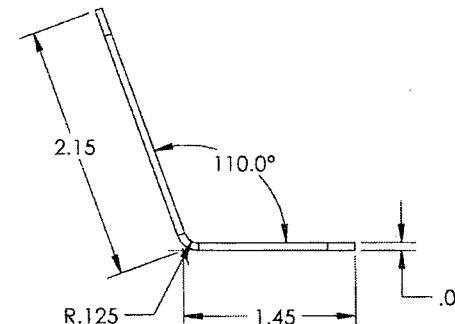
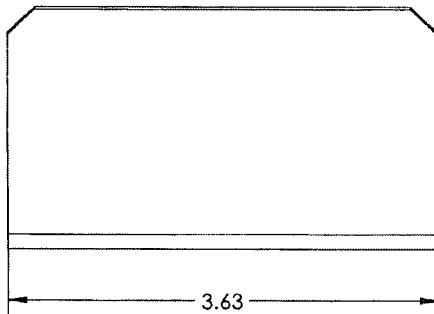
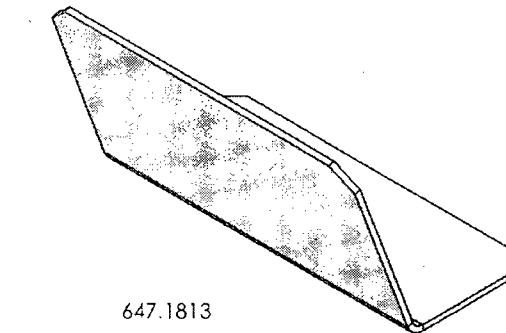
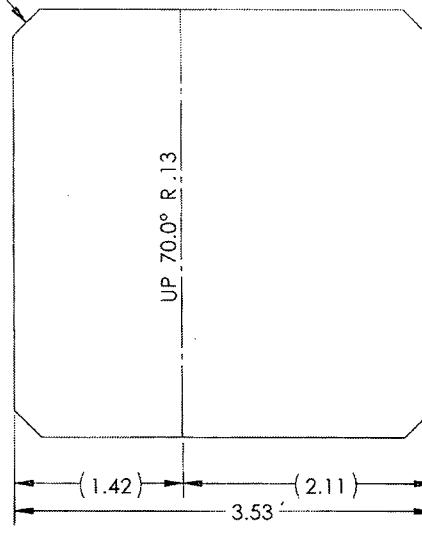


ORIGINAL DATE	03-01-00	REVISION	
DRAWN BY	C. GARDNER	CHECKED BY	P. BRAVO
APICAL INDUSTRIES	2608 TEMPLE HEIGHTS DR.	OCEANSIDE, CA. 92056-3512	(760)724-5300
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED		SIZE	INCHES
DIMENSIONS ARE IN INCHES		SCALE	1:100
TOLERANCES ARE:	.005	STOCK NO.	647.1800
3 PLACE DECIMALS ± .005		REV.	A
ANGLES ± 2°		DATE	03-01-00
		FILE CODE	
		PLATE NO.	B 07M26
		SCALE	NONE
		SHEET	3 OF 7

94189

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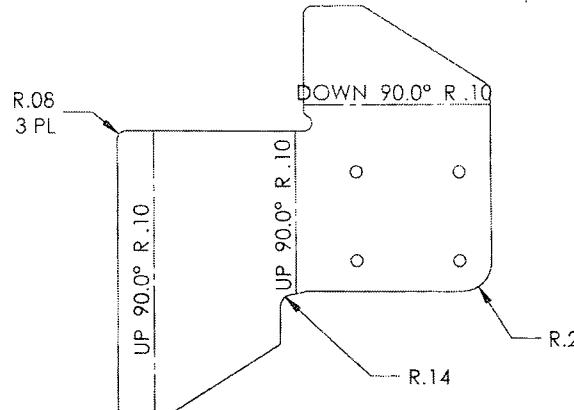
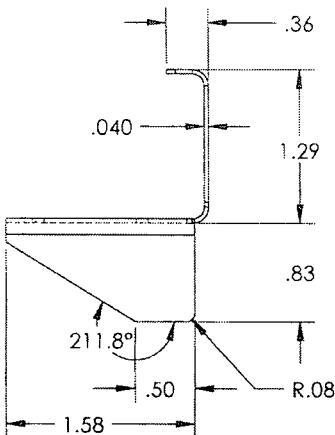
.23 X 45.0°  
PL



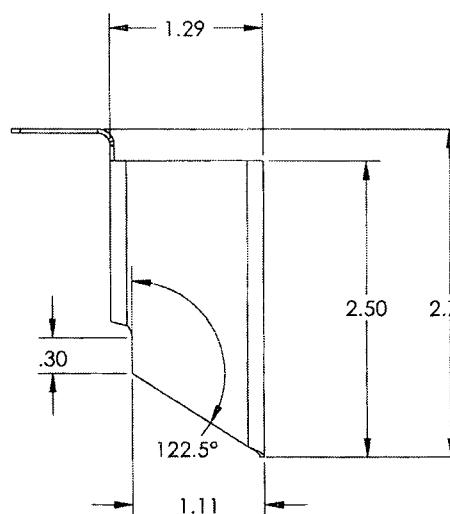
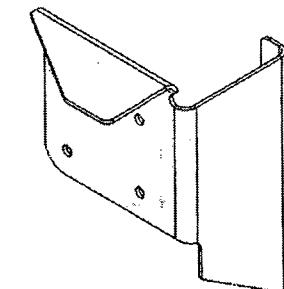
ORIGINAL DATE	04/01/92	DESIGNER	
DRAFTER	J. CARPENTER	CHECKER	P. SPANUOLO
APICAL INDUSTRIES	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300		
DRAWING APPROVAL			
A. BRAVO			
COM-PAC 1.0			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE AS PER ASME Y14.5M-1994 3 PLACE DECIMAL 2.000 ANGLES ± 3°			
REV.	C-1	DATE DRAWN	04/01/92
8	07M26	647.1800	A
SCALE: NONE		SHEET 4 OF 7	

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FLAT PATTERN



647.1814 SHOWN  
647.1815 OPPOSITE

ORIGINAL DATE	05/21/00
DRAWN BY	C. FELKER
2D/3D BY	P. BRAVO
DRAWING APPROVAL	P. BRAVO
CONTRACT NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	SIZE CLASS CODE Dwg No. 647.1800 REV A
THICKNESSES ARE IN INCHES	B 07M26
3 PLACE DECIMALS 2.000	SCALE: NONE
ANGLES ± .5°	1 SHEET 5 OF 7

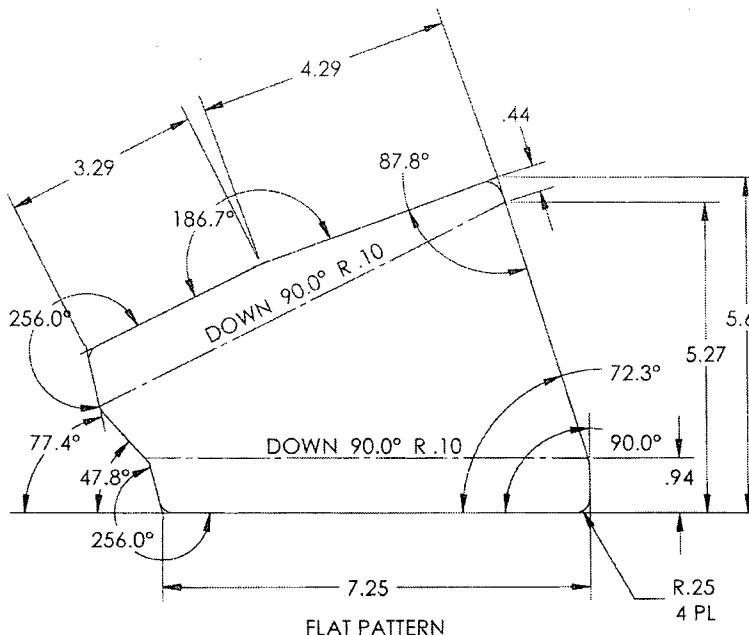
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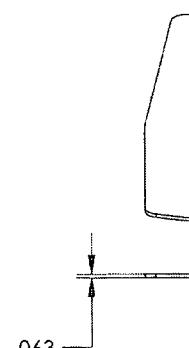
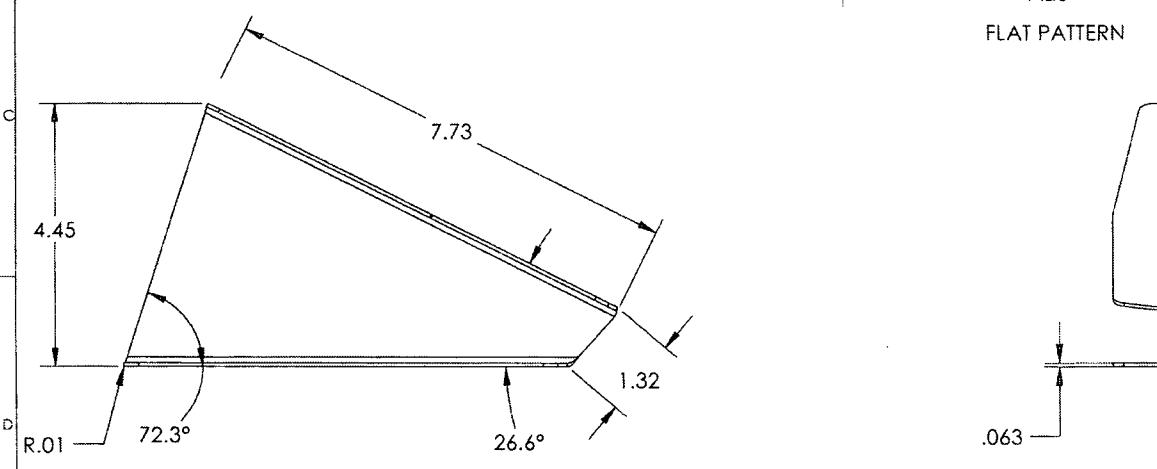


B



647.1816 SHOWN  
647.1817 OPPOSITE

FLAT PATTERN

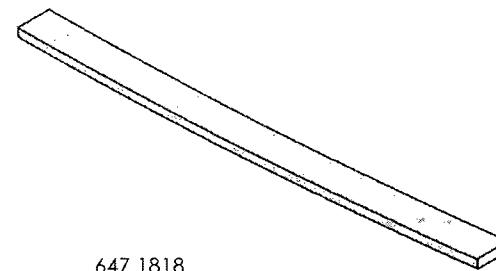
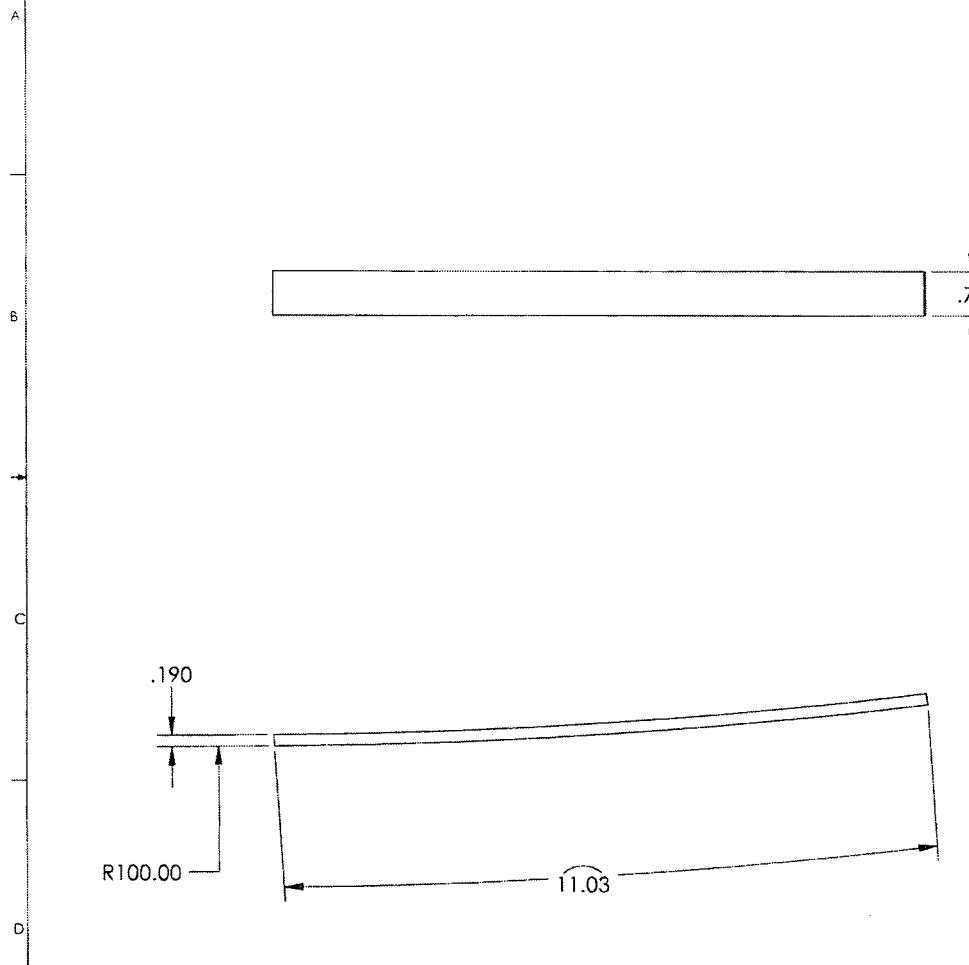


ORIGINAL DATE	04-21-09	APICAL INDUSTRIES
DRAWN BY	CHECET	2608 TEMPLE HEIGHTS DR.
DESIGNER	P. BRAVO	OCEANSIDE, CA, 92056-3512 (760)724-5300
DRAWING APPROVAL	P. BRAVO	
CONTRACTING		
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES TOLERANCES ARE .005 INCHES 2 PLACE DECIMALS .001 3 PLACE DECIMALS .0005 ANGLES ± .5°	DATE 04-21-09 8 07 AM 06	REV. A 647.1800 SCALE: NONE SHEET 6 OF 7

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1 2 3 4 5 6 7 8



647.1818

ORIGINAL DATE REV'D DATE	05-01-92	APICAL INDUSTRIES
DESIGNER	P. BRAVO	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300
DRAWING APPROVAL	P. BRAVO	
CONTRACT NO.		SHEETMETAL
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1 PLACE DECIMALS ± .01 2 PLACES DECIMALS ± .005 ANGLES ± 3°	215 GAGE CODE CINC. NO. B 07WZ6	647.1800 P.M. SCALE: NONE SHEET 7 OF 7

DART AEROSPACE LTD	Work Order:	94189
Description: ANGLE	Part Number:	647-1813
Inspection Dwg: 647-1813 Rev: A		Page 1 of 1

# **FIRST ARTICLE INSPECTION CHECKLIST**

Measured by:	R
Date:	12-12-16

Audited by:	09 99
Date:	6-12-17

<b>Preliminary Approval:</b>	
<b>Date:</b>	



A.T.G. Industries Inc.  
731, rue Industrielle Rd.  
PLATING DEPARTMENT  
Rockland, On K4K 1T2  
Canada  
Ph: (613) 446-4544  
Fax: (613) 446-4556

### Pack List

Number: 62212

Date: 13-Feb-13

To

DART AEROSPACE LTD  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7  
Canada

Ship To

DART AEROSPACE LTD  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7  
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via
Quantity	Description	
1 lot	Part: ASST  4 PCS 647.2010 14 PCS 647.2011 4 PCS 646.9910 4 PCS 647.1813 3 PCS 647.7915 8 PCS 649.4816 170 PCS 646.9910 30 PCS 646.3715 4 PCS 647.7914 14 PCS 646.3713 41 PCS 649.4813 4 PCS 647.1910 16 PCS 646.9710  HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 Job: 20130090	Rev:  Line: PO: PO18829

Certificate of Conformance

A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order.

ISO 9001 : 2008 REGISTERED  
ATG SALES-2010 TERMS APPLY

DATE: 13/2/13

CERTIFIED SIGNATURE: M

RECEIVER SIGNATURE: \_\_\_\_\_